#92761

STIC-FPAS
From: Nguyen, George
Sent: Monday, April 28, 2003 2:40 PM
To: STIC-FPAS
Subject: RE: Litigation search for 10/035828

[CP2 11E04]

6,007,408.

-----Original Message-----
From: STIC-FPAS
Sent: Monday, April 28, 2003 2:40 PM
To: Nguyen, George
Subject: RE: Litigation search for 10/035828

APR 29 2003

Please send me a US patent number

-----Original Message-----
From: Nguyen, George
Sent: Monday, April 28, 2003 2:39 PM
To: STIC-FPAS
Subject: Litigation search for 10/035828

Please conducut the litigation search for the above case. I am at CP2-11E04, 308-0163. Thank you.

COMPLETED

UNITED STATES PATENT AND TRADEMARK OFFICE GRANTED PATENT

6007408

December 28, 1999

Method and apparatus for endpointing mechanical and chemical- mechanical polishing of substrates

REISSUE: December 28, 2001 - Reissue Application filed Ex. Gp.: 3723; Re. S.N. 10/035,828 (O.G. September 10, 2002)

CERT-CORRECTION: May 15, 2001 - (O.G. May 15, 2001) a Certificate of Correction was issued for this patent

APPL-NO: 917665 (08)

FILED-DATE: August 21, 1997

GRANTED-DATE: December 28, 1999

ENGLISH-ABST:
An apparatus and method for stopping mechanical and chemical- mechanical polishing of a substrate at a desired endpoint. In one embodiment, a polishing machine has a platen, a polishing pad positioned on the platen, and a polishing medium located at a planarizing surface of the polishing pad. The polishing machine also has a substrate carrier that may be positioned over the planarizing surface of the polishing pad, and at least one heat sensor is coupled to the polishing machine to detect heat at a front side of the substrate. The heat sensor preferably measures a temperature of a component sensitive to heat at the front side of the substrate, such as the planarizing surface of the polishing pad, the back side of the substrate, or the byproducts produced by polishing the substrate. In operation, the heat sensor monitors the heat at the front side of the substrate, and the removal of material from the substrate is stopped when the heat at the front side of the substrate changes from a first heat range to a second heat range.

(C) QUESTEL 1994
QUESTEL.ORBIT (TM) 1998

Selected file: PLUSPAT

**** SS 1: Results 1**

1 / 1 *PLUSPAT - ©QUESTEL-ORBIT*
PN - US6007408 A 19991228 [US6007408]
TI - (A) Method and apparatus for endpointing mechanical and chemical-mechanical polishing of substrates
PA - (A) MICRON TECHNOLOGY INC (US)
PA0 - Micron Technology, Inc., Boise ID [US]
IN - (A) SANDHU GURTEJ S (US)
AP - US91766597 19970821 [1997US-0917665]
PR - US91766597 19970821 [1997US-0917665]
IC - (A) B24B-001/00
EC - B24B-037/04I
B24B-049/02
B24B-049/14
PCL - ORIGINAL (O) : 451041000; CROSS-REFERENCE (X) : 451007000 451053000
DT - Basic
CT - US4200395; US4203799; US4358338; US4367044; US4377028; US4422764; US4640002; US4660980; US4717255; US4879258; US5036015; US5064683; US5069002; US5081796; US5154021; US5216843; US5220405; US5314843; US5324381; US5369488; US5413941; US5433651; US5461007; US5465154; US5597442; US5609719; US5616069; US5643050; US5663797; US5733176; US5762537; US5777739; US5855804
STG - (A) United States patent
AB - An apparatus and method for stopping mechanical and chemical-mechanical polishing of a substrate at a desired endpoint. In one embodiment, a polishing machine has a platen, a polishing pad positioned on the platen, and a polishing medium located at a planarizing surface of the polishing pad. The polishing machine also has a substrate carrier that may be positioned over the planarizing surface of the polishing pad, and at least one heat sensor is coupled to the polishing machine to detect heat at a front side of the substrate. The heat sensor preferably measures a temperature of a component sensitive to heat at the front side of the substrate, such as the planarizing surface of the polishing pad, the back side of the substrate, or the byproducts produced by polishing the substrate. In operation, the heat sensor monitors the heat at the front side of the substrate, and the removal of material from the substrate is stopped when the heat at the front side of the substrate changes from a first heat range to a second heat range.

1 / 1 *LGST - ©LEGSTAT*
PN - US 6007408 [US6007408]
AP - US 917665/97 19970821 [1997US-0917665]
DT - US-P
ACT - 19970821 US/AE-A
APPLICATION DATA (PATENT)
US 917665/97 19970821 [1997US-0917665]

19991228 US/A
PATENT

20010515 US/CC
CERTIFICATE OF CORRECTION

20020910 US/RF
REISSUE APPLICATION FILED
20011228
UP - 2002-38

1 / 1 *CRXX - ©CLAIMS/RRX*
PN - 6,007,408 A 19991228 [US6007408]
PA - Micron Technology Inc
ACT - 20011228 REISSUE REQUESTED
ISSUE DATE OF O.G.: 20020910
REISSUE REQUEST NUMBER: 10/035828
EXAMINATION GROUP RESPONSIBLE FOR REISSUEPROCESS: 3723

Reissue Patent Number:

Selected file: INPADOC

**** SS 1: Results 1**

1 / 1 *INPADOC - ©INPADOC*
PN - US 6007408 A 19991228 [US6007408]
TI - METHOD AND APPARATUS FOR ENDPOINTING MECHANICAL AND CHEMICAL-MECHANICAL POLISHING OF SUBSTRATES
IN - SANDHU GURTEJ S [US]
PA - MICRON TECHNOLOGY INC [US]
AP - US 917665/97-A 19970821 [1997US-0917665]
PR - US 917665/97-A 19970821 [1997US-0917665]
IC - B24B-001/00

1 / 1 *LEGALI - ©LEGSTAT*
PN - US 6007408 [US6007408]
AP - US 917665/97 19970821 [1997US-0917665]
DT - US-P
ACTE - 19970821 US/AE-A
APPLICATION DATA (PATENT)
US 917665/97 19970821 [1997US-0917665]

19991228 US/A
PATENT

20010515 US/CC
CERTIFICATE OF CORRECTION

20020910 US/RF
REISSUE APPLICATION FILED
20011228
UP - 2002-38

Session finished: 29 APR 2003 Time 19:20:33